Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| In Re Patent Application of: |) | |
|---|-------------|------------------|
| Pani, et al. |) Examiner: | Not yet assigned |
| Application No: Not yet assigned |) Art Unit: | Not yet assigned |
| Filed: Herewith |) | |
| For: Method and Apparatus for Universal Program Controlled Bus Architecture |))) | |
| A Continuation of |) | |
| Application No. 10/412,975 |)) | |
| Filed: April 11, 2003 |)) | |
| | - <i>J</i> | |

Commissioner for Patents PO Box 1450 Alexandria, Virginia 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

Enclosed is a copy of Information Disclosure Citation Form PTO-1449. It is respectfully requested that the cited documents be considered and that the enclosed copy of Information Disclosure Citation Form PTO-1449 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicants.

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure

Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

| _X | 37 C.F.R. §1.97(b). |
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| | 37 C.F.R. §1.97(c). If so, then enclosed with this Information Disclosure Statement is <u>one</u> of the following: |
| | A statement pursuant to 37 C.F.R. §1.97(e) or |
| | A check for \$180.00 for the fee under 37 C.F.R. § 1.17(p). |
| | 37 C.F.R. §1.97(d). If so, then enclosed with this Information Disclosure Statement are the following: |

- (1) A statement pursuant to 37 C.F.R. §1.97(e); and
- (2) A check for \$180.00 for the fee under 37 C.F.R. §1.17(p) for submission of the Information Disclosure Statement.

Pursuant to 37 C.F.R. §1.98(d), copies of cited art are not enclosed. The cited art has been previously cited in parent application no. 10/412,975, filed April 11, 2003.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: <u>3/89</u>, 2004

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| Substitute for Form 1449A/PTO (Modified) (use as many sheets as necessary) | | | | | Attorney Docket No.: Application Number: Not yet assigned | | |
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| | | | | | First Named Inventor: Peter M. Pani | | |
| | | | | | Filing Date: Herewith | | |
| | | | 1 | U.S. PATEN | NT DOCUMENTS | | |
| Exam. Initial* | Cite No. ¹ | U.S. Patent Number Code ² | Document Kind (If known) | Na | ame of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | 4,020,469 | | | Manning | 4/26/77 | |
| | | 4,661,901 | | | Veneski | 4/28/87 | |
| | -, | 4,684,830 | | | Tsui et al. | 8/87 | |
| | | 4,700,187 | | | Furtek | 10/13/87 | |
| | | 4,720,780 | _ | | Dolecek | 1/19/88 | |
| | | 4,736,333 | | | Mead et al. | 4/5/88 | |
| | | 4,847,612 | | | Kaplinsky | 7/11/89 | |
| | | 4,870,302 | | | Freeman | 9/26/89 | |
| | | 4,918,440 | | | Furtek | 4/17/90 | |
| | - | 4,935,734 | | | Austin | 6/19/01 | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | |
|-------------------|--------------------------|--|--------------------------------------|--------------------------|--|---|---|----------------|--|
| Exam. Initial* | Cite No. ¹ | Fore Office ³ Code ⁵ | eign Patent D Number ⁴ | Occument Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | |
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| | | | U.S | . PATENT DOCUMENTS | | |
| Exam. Initial* | Cite No.1 | U.S. Patent Number Code ² | Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | 4,992,680 | | Benedetti et al. | 2/12/91 | 11 - |
| | _ | 5,144,166 | | Camarota et al. | 9/1/92 | |
| | | 5,204,556 | | Shankar | 4/20/93 | |
| | | 5,208,491 | | Ebeling et al. | 5/4/93 | |
| | | 5,221,865 | | Phillips et al. | 6/22/93 | |
| • | | 5,243,238 | | Kean | 9/7/93 | |
| | | 5,256,918 | | Suzuki | 10/93 | |
| | | 5,260,610 | | Pedersen et al. | 11/9/93 | |
| | | 5,260,611 | | Cliff et al. | 9/93 | |
| | | 5,296,759 | | Sutherland et al. | 3/22/94 | |

| | | | | FO | REIGN PATENT DOCUMENTS | | | , |
|-------------------|--------------------------|--|--------------------------------------|------------------|--|--|---|----------------|
| Exam. Initial* | Cite No. ¹ | Fore Office ³ Code ⁵ | eign Patent D Number ⁴ | Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
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| | <u> </u> | · <u>·</u> . | U.S | S. PATENT DOCUMENTS | • | - | |
| Exam. Initial* | Cite No. ¹ | U.S. Patent Number Code ² | Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | |
| | | 5,298,805 | | Garverick et al. | 3/29/94 | | |
| | | 5,329,470 | | Sample et al. | 7/12/94 | | |
| | | 5,349,691 | | Harrison et al. | 9/20/94 | | |
| | | 5,369,314 | | Patel et al. | 11/29/94 | | |
| | | 5,376,844 | | Pedersen et al. | 12/94 | | |
| | | 5,396,126 | | Britton et al. | 3/7/95 | | |
| | | 5,406,525 | | Nicholes | 4/11/95 | | |
| | | 5,444,394 | | Watson et al. | 8/22/95 | | |
| | | 5,455,525 | | Ho et al. | 10/3/95 | | |
| | | 5,457,410 | | Ting | 10/10/95 | | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | |
|-------------------|--------------------------|--|--------------------------------------|----------------------------|--|--|---|----------------|--|
| Exam. Initial* | Cite No. ¹ | Fore Office ³ Code ⁵ | eign Patent D Number ¹ | Nocument Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | |
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| -4-16 | | . Action | U. | S. PATEN | T DOCUMENTS | | |
| Exam. Initial* | Cite No. ¹ | U.S. Patent Number Code ² | Nind (If known) | Na | me of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | 5,469,003 | | | Kean | 11/21/95 | |
| | | 5,477,067 | | | Isomura et al. | 12/19/95 | |
| | | 5,506,517 | | | Tsui et al. | 4/9/96 | |
| | _ | 5,519,629 | | | Snider | 5/21/96 | |
| | | 5,550,782 | | | Cliff et al. | 8/27/96 | |
| | | 5,552,722 | | | Kean | 9/3/96 | |
| : | | 5,572,148 | | | Lytle et al. | 11/5/96 | 1 |
| | | 5,581,199 | | | Pierce et al. | 12/3/96 | |
| | | 5,581,767 | | | Katsuki et al. | 12/3/96 | |
| | | 5,815,004 | | | Trimberger et al. | 9/29/98 | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
|-------------------|--------------------------|--|--------------------------------------|---------------------------|--|--|---|----------------|--|--|--|
| Exam. Initial* | Cite No. ¹ | Fore Office ³ Code ⁵ | eign Patent D Number ¹ | ocument Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | | | |
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| Exam. Initial* | Cite No. ¹ | U.S. Patent Number Code ² | Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | 5,825,202 | | Tavana et al. | 10/20/98 | |
| | | 5,835,405 | · | Tsui et al. | 11/10/98 | |
| | | 5,894,228 | | Reddy et al. | 4/13/99 | |
| | | 5,894,565 | | Furtek et al. | 4/13/99 | |
| | | 5,903,165 | | Jones et al. | 5/11/99 | |
| | | 5,905,655 | | Deeley | 5/18/99 | |
| | | 5,969,543 | | Erickson et al. | 10/19/99 | |
| | | 6,034,547 | | Pani et al. | 3/7/00 | |
| | | 6,167,559 | | Furtek et al. | 12/26/00 | , |
| | | 6,496,887 | | Plants | 12/17/02 | |

| | FOREIGN PATENT DOCUMENTS | | | | | | | | | | |
|-------------------|--------------------------|--|--------------------------------------|----------------------------|--|---|---|----------------|--|--|--|
| Exam. Initial* | Cite No. ¹ | Fore Office ³ Code ⁵ | eign Patent D Number ⁴ | Nocument Kind (If known) | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | | | |
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| | | | , | U.S. PATEN | NT DOCUMENTS | | |
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| nuuai | 140. | Number Code ² | Kind (If known) | | or chea botainem | MM-DD-YYYY | Lines, Where Relevant Passages or Relevant Figures Appear |
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| | | | 1 | FORE | IGN PATENT DOCUMENTS | | | |
|--------------------------|--|-----|-------------------|--|--|---|----------------|--|
| Exam. Cite Initial* No.1 | Foreign Patent Document Office ³ Number ⁴ Kind Code ⁵ (If known) | | Code ⁵ | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD- YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ | |
| | | EP | 0415542A1 | | Advanced Micro Devices, Inc. | 3/6/91 | | |
| | | EP | 0630115A2 | | Pilkington Micro-Electronics Limited | 12/21/94 | | |
| | | GB | 2180382A | | Pilkington Micro-Electronics Limited | 3/25/87 | | |
| | | GB | 2295738A | | Altera Corporation | 6/5/96 | | |
| | | PCT | WO92/08286 | | Concurrent Logic, Inc. | 5/14/92 | | |
| | | PCT | WO94/28475 | | Regents of the University of California | 12/8/94 | | |
| - | | PCT | WO96/05964 | | Minnesota Mining and Manufacturing Co. | 2/29/96 | | |
| | | PCT | WO96/35261 | | BTR, Inc. | 11/7/96 | | |
| | | PCT | WO94/10754 | | Xilinx, Inc. | 5/11/94 | | |
| | | PCT | WO95/04404 | | Advantage Logic, Inc. | 2/9/95 | | |

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|-----------|---------------|----|
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| | | | Filing Date: Herewith | | |
| | | OTHER ART - NO PATENT | LITERATURE DOCUMENTS | | |
| Examiner Initials* | | | | | on² |
| | | Richard Cliff et al., "A Dual Granularity and Globally Interconnected Architecture for a Programmable Logic Device", Proceedings of the IEEE 1993 Custom Integrated Circuits Conference, May 1993, pp. 7.3.1-7.3.5. Altera Corporation, Data Sheet, "Flex EPF81188 12,000-Gate Programmable Logic Device", September 1992, Version 1. | | | |
| | | | | | |
| | | Minnick, R.C., "A Survey of Microco Association for Computing Machiner 241. | | | |
| | | Shoup, R.G., "Programmable Cellula Carnegie-Mellon University, Pittsbur | | ion, | |
| | | Spandorfer, L.M., "Synthesis of Logi Circuits", UNIVAC, Division of Spe Contract AF 19 (628)2907, AFCRL (1965. | rry Rand Corporation, Blue Bel | l, PA, | |
| | | Ping-Tsung Wang et al., "A High Per Interconnection Structure", Institute of 239-242, May 30, 1994. | | l l | |
| | | Motorola Product Brief, "MPA10XX pages total, September 27, 1993. | Field Programmable Gate Arra | ays", 4 | |
| | | Krambeck, R.H. "ORCA: A High Per Architecture", Wescon '93 record, pp | , e | I | |
| | | Buffoli et al., "Dynamically Reconfig Tuning, High Performance PID Cont | - | ľ | |
| | | Devadas, S., "Boolean Decomposition 1988, pp. 2.5.1-2.5.5. | on of Programmable Logic Arra | ys", IEEE | |

Date

Examiner Considered Signature

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| | | OTHER ART - NO PATENT | LITERATURE DOCUMENTS | | | |
| Examiner Initials* | | | | | Translation ² | |
| | | Vidal, J., "Implementing Neural Nets with Programmable Logic", IEEE 1988, pp. 50-53. | | | | |
| _ | | Yachyang Sun et al., "An Area Minimizer for Floorplans with L-Shaped Regions", 1992, Int'l. Conference on Computer Design, pp. 383-386. Atmel Corporation, "Field Programmable Gate Arrays – AT6000 Series", 1993. | | | | |
| | | | | | | |
| | | Sinan Kaptanoglu et al., "A New Hig Reprogrammable FPGA Architecture | • • | | | |
| | | Dave Bursky, "Fine-Grain FPGA Ar Configuration Hierarchy", Electronic | | 1993. | | |
| | | Dick L. Liu et al., "Design of Large I Test", IEEE 1988, pp. 50-53. | Embedded CMOS PLA's for Bu | uilt-In Self- | | |
| | | Xilinx, "The Programmable Gate Ar | ray Data Book", 1992. | | | |
| - | | F. Zlotnick et al., "A High Performation based FPGAs, Wescon '93 Record, p | | | | |
| | | Barry K. Britton et al., "Optimized F High Performance Field Programma 1993 Custom Integrated Circuits Co | ble Gate Arrays", Proceedings of | of the IEEE | | |
| · | | | | | | |

Examiner Date
Signature Considered

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